TABLE 1. *Simple Mastectomy for Mammary Carcinoma*
(Miller)
5- and 10-Year Crude Survival Rates—212 Patients

Columbia Clinical Classification	No. of Patients	Survived 5 Years		Survived 10 Years	
		No.	%	No.	%
A	115	71	62	46	40
B	34	14	41	9	26
C	18	4	22	4	22
D	45	7	13	4	9
Total	212				

Conservative Radical Mastectomy (Patey's Operation)

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THE object of this communication is to report the 10-year results in the series of 143 patients which was published 5 years ago in this cooperative study. All have been treated by a technic which, we believe, clears the axilla efficiently while yielding a much better cosmetic result than the classical radical mastectomy. In addition all patients had, at the time of their primary treatment, biopsies of the internal mammary lymph nodes, intended as a pathological reconnaisance rather than a therapy.

A brief recapitulation of the details of the operation may be helpful to those who do not have the original paper readily available.

The Operation

The technique of conservative radical mastectomy has been published in detail elsewhere [3] (Handley, 1965). Its cardinal point is that it preserves the pectoralis major muscle while removing, with virtually the same efficiency as the classical Halsted operation, the axillary nodes. To summarize the successive steps in the operation, the skin incisions and flap-raising procedure are identical with those of the Halsted technic. The primary tumor is encircled by an incision which nowhere approaches its palpable edge closer than 5 cm., and transverse prolongations or prolongations toward the coracoid process and xiphisternum give appropriate access. The flaps are thin but not devoid of all fat. The removal of the breast is begun at the midline, and the breast, together with the pectoral fascia and a few muscle fibers, is peeled off the pectoralis major by sharp dissection as far as the infero-lateral edge of the muscle. At this stage biopsies of the medial ends of the upper three intercostal spaces are done and if obvious invasion by tumor is found, the operation is terminated as simply as possible—thereby excluding the patient from the series of cases here reported. If no internal mammary invasion is obvious, the towelled arm is raised so that the elbow points to the ceiling, the pectoralis major is retracted upwards and medially, and the muscle sepa-

rated from the pectoralis minor and costoclavicular fascia. It is of great importance to preserve the pectoral branch of the thoraco-acromial artery and lateral pectoral nerve which should be left adherent to the posterior surface of the pectoralis major. Branches of the medial pectoral nerve are divided as they pierce the pectoralis minor. The pectoralis minor is now cut off the coracoid process and retracted caudad to reveal the axillary vein and the latter is cleaned up to the first rib and down to the subscapular vessels. The long thoracic nerve (of Bell) is always preserved and usually also the thoraco-dorsal nerve and subscapular vessels. The pectoralis minor is divided at its origin from the chest wall and the breast, pectoralis minor, and axillary fat and nodes removed in one piece. Skin grafting is required to close the wound in about 50% of the cases. Suction drainage is used for 3 or 4 days, with only the lightest of dressings. Radiotherapy is given only to those with histologically invaded nodes. Prophylactic oophorectomy or chemotherapy are never added to the operation.

Ten-year Results

The 10-year results of the 143 patients reported 5 years ago in this international cooperative study are shown in Table 2. In Stage A, the crude 5-year survival of 75% has dropped to 61% at 10 years and of the survivors four have shown evidence of recurrent disease. Of the dead in Stage A, three patients almost certainly did not die of recurrent carcinoma. In Stage B, the corresponding survival figures are 57% and 25%, the mortality in this stage thus continuing between 5 and 10 years much more steeply than in Stage A. The numbers of patients in Stage C is too small for any valid conclusions but they show the tendency which one might expect.

No patient has been lost to follow-up.

TABLE 2. *Conservative Radical Mastectomy (Patey's Operation) for Mammary Carcinoma*
(Handley and Thackray)
5- and 10-Year Crude Survival Rates—143 Patients

Columbia Clinical Classification	No. of Patients	% Survived 5 Years	% Survived 10 Years
A	77	75	61
B	58	57	25
C	8	25	14
Total	143		

Local Recurrence at 10 Years

By an oversight, our previous contribution did not contain any details of the recurrence rate within the area of the operation at 5 years. We have now remedied this defect by recording details of recurrences in the chest wall, parasternal area, or axilla at 10 years in the 143 patients. The records are not fully accurate because many patients died at home, some even in foreign countries, and doctors' or relatives' letters, death certificates, etc., are sometimes the best evidence we have been able to obtain; details may thus have been omitted.

An analysis of the evidence, such as it is (Table 3), shows that two patients in Clinical Stage A and 1 in Stage C had axillary recurrences; all three in fact were found to have histologically invaded nodes. Twelve Clinical Stage A cases (two of whom also had axillary recurrence and one both axillary and parasternal recurrence in addition, and are thus counted twice and thrice, respectively) had recurrences in the operation area but only five of these showed no histological invasion of nodes. Thus 12 (16%) of Clinical Stage A patients out of 77 showed local recurrence. In Clinical Stage B no patient showed an axillary recurrence, but 15 of 58 had local recurrence, only one of whom was found to have histologically free nodes. In Clinical Stage C, seven of the eight patients

TABLE 3. *Conservative Radical Mastectomy (Patey's Operation) for Mammary Carcinoma* (Handley and Thackray)

Frequency of Local Recurrence at 10 Years in 143 Patients

Columbia Clinical Classification	No. of Patients	Recurrences				% of Patients with Local Recurrence
		Parasternal	Chest Wall	Axillary	All Sites	
A	77	4	9	2	15 in 12 patients	16
B	58	3	13	0	16 in 15 patients	26
C	8	1	7	1	9 in 7 patients	87

TABLE 4. *Conservative Radical Mastectomy (Patey's Operation) for Mammary Carcinoma* (Handley and Thackray)

Frequency of Axillary, Internal Mammary, and Axillary Plus Internal Mammary Metastases at 5 Years

Columbia Clinical Classification	No. of Patients	All Nodes Free	Axillary Metastases Only	Internal Mammary Metastases Only	Both Sets of Nodes Invaded
A	77	41 = 53%	28	2	6
B	58	13 = 22%	23	0	22
C	8	0	3	0	5

showed local recurrence, one also having recurrence in the axilla. There has been no recurrence in the pectoralis major muscle. To summarize the matter, 16% of Clinical Stage A cases, 26% of Stage B, and 87% of Stage C showed local recurrence.

Only one Stage A and three Stage B patients developed their local recurrences between 5 and 10 years. In the remainder, all these recurrences had appeared by 5 years.

Clinical Staging and Histology

Table 4 is reprinted (for the convenience of readers) from the cooperative study of 5 years ago. It shows the correlation between clinical staging and pathological examination of the 143 operative specimens. It is disappointing to see how often we are wrong in believing after clinical examination that axillary nodes are not invaded when in fact they are. In our Stage A cases no less than 34 of 77 patients (44%) had invaded axillary nodes. Nevertheless clinical staging is valuable in prognosis because the axillary invasion in these Stage A cases was early and the prognosis thus much better than in the average Stage B case.

Clinical judgment in Stage B was more accurate. In 45 of 58 patients (78%) the state of the axillary nodes was assessed correctly on clinical examination.

In Stage C the small data available demonstrate the accuracy of clinical judgment in node assessment.